

CLAIMS

1. A planar structural element (1) made from metal, particularly for filtration, **characterised in that** a metal fibre thread (5 to 12) is worked in between metal wire (2 to 4).  
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2. The planar structural element according to claim 1, **characterised in that** the metal fibre thread (5 to 12) has a larger diameter than the metal wire (3 to 4).  
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3. The planar structural element according to any of the preceding claims, **characterised in that** the metal wire (2 to 4) is woven together with the metal fibre thread (5 to 12).  
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4. The planar structural element according to claim 3, **characterised in that** the metal wire (2 to 4) constitutes the warp, and the metal fibre thread (5 to 12) the weft of a cloth.  
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5. The planar structural element according to any of the preceding claims, **characterised in that** the metal wire (2 to 4) is a monofilament wire.  
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6. The planar structural element according to any of the preceding claims, **characterised in that** the metal wire (2 to 4) forms a smooth surface (13, 14).  
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7. The planar structural element according to any of the preceding claims, **characterised in that** the planar structural element (1) is furnished with a support layer (15) consisting of metal wire (16 to 19), preferably monofilament wire.  
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8. The planar structural element according to any of the preceding claims, **characterised in that** metal wire

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(22), preferably monofilament wire holds planar structural element (1) together.

9. The planar structural element according to any of the preceding claims, **characterised in that** a section through the metal fibre thread (5 to 12) comprises more than 100, preferably more than 500 individual capillaries.

10 10. The planar structural element according to any of the preceding claims, **characterised in that** an individual capillary has a diameter less than 100  $\mu\text{m}$ , preferably less than 30  $\mu\text{m}$ .

15 11. A method for manufacturing a planar structural element, particularly according to any of claims 1 to 10, **characterised in that** a metal fibre thread (5 to 12) encased in a skin is woven together with a metal wire (2 to 4) to form a cloth, and the skin is then removed.

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12. The method according to claim 11, **characterised in that** the skin is removed using a liquid.

25 13. The method according to either of claims 11 or 12, **characterised in that** the cloth is welded to a solid body.

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14. The method according to any of claims 11 to 13, **characterised in that** stainless steel is used for the metal fibre thread (5 to 12) and for the metal wire (2 to 4).

35 15. Use of a planar structural element in accordance with any of claims 1 to 10 for depth filtration.